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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,907	01/18/2002	Willie Stroup	02514.0007.NPUS01	5808

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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,907

Applicant(s)

STROUP, WILLIE

Examiner

Krishnan S Menon

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1723

DETAILED ACTION

Claims 1-15 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1 is rejected under 35 USC 102 (b) as being clearly anticipated by Homer (US 4,836,937)

Homer teaches an apparatus for reducing liquid in a liquid-solid mixture comprising a holding chamber (10-fig 1 and 2), a conduit for directing liquid away from the mixture (22,24), a filter separating the conduit and the chamber (40,42,44,46), a membrane forming a substantially air-tight seal over the chamber and in substantial contact with the mixture (90), means for reducing the pressure in the conduit (col 5 lines 57-68), wherein the reduced pressure produces a difference in pressure between the chamber and the exterior of the chamber evenly distributed across the membrane for drawing liquid from the mixture through the filter (col 6 lines 1-10) as in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1723

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 2-8, and 12-15 are rejected under 35 USC 103 (a) as being unpatentable over Homer (937) in view of Winter et al (US 5,277,814)

Homer teaches all the limitations of claim 1. Instant claims add further limitations which Homer does not teach, but Winter teaches as follows: The chamber comprises heating means disposed within the walls of the chamber as in instant claims 2-5 (col 7 lines 34-40). The apparatus further comprises air injectors disposed within the chamber as in instant claims 6 and 7 (col 5 lines 60-68; col 2 lines 27-40); temperature monitoring and control means as in instant claims 12 and 13 and the temperature is maintained between 100 and 200 °F (col 2 lines 62-68; col 7 lines 17-40) as in instant claim 15. It would be obvious to one of ordinary skill in the art at the time of invention to use the teachings of Winter in the teaching of Homer to provide means for heating the solid liquid mixture, monitoring the temperature and providing aeration when the solid liquid mixture to be treated is water containing organic wastes as taught by Winter (see abstract)

Re claims 6-8, Homer also teaches air injection (col 7 lines 40-50; also back-flush – col 7 lines 32-35). The membrane comprises air injector in claim 8, which is taught by Homer in lines 40-50, col 7: vent line is attached to the membrane 90, which pulls in air when the vacuum pump is operated, until the vent valve is closed when the membrane (bag – 90) starts to collapse. Regarding

Art Unit: 1723

claim 14, Homer teaches an apparatus that is portable (col 3 lines 42-50). Re claim 5, any heating means provided as per the Winter teaching in Homer's apparatus would be within the membrane 90, since the membrane 90 encloses the mixture completely.

1. Claims 9-11 are rejected under 35 USC 103(a) as unpatentable over Homer (937) in view of Winter (814) as applied to claim 8 above, and further in view of Eichler (US 5,118,427).

Homer in view of Winter does not teach vibrating means for agitating the mixture as in claim 9. Eichler (427) teaches vibrating means for agitating (col 3 lines 17-45). It would be obvious to one of ordinary skill in the art at the time of invention to vibrate the membrane as taught by Eichler in the teachings of the separating apparatus of Homer in view of Winter to keep the liquid mixture viscosity low for faster removal of liquids.

Re claims 10 and 11, Homer teaches moisture collection tank (106-fig 1), and Winter teaches moisture collecting tank disposed to receive liquids as in instant claims 10 and 11 (14,15 and 23 fig 1).

Response to Arguments

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1723

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon
Patent Examiner
July 16, 2003


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700